Deconstructing a famous Alfa Romeo

So is this the famous racing car Mussolini liked to show off, the one driven by Achille Varzi and used by Clemar Bucci to impress Evita Perón? Is just has to be, if materials research conducted by TU Delft is anything to go by. It’s just that the chassis number doesn’t match. “That Bucci guy has been telling a lot of lies.”

Tomas van Dijk

Beaming with joy, Jetze Visser, together with Harry and Jerry Bootsma, listens to the conclusions of a small team of materials experts. The scientists can confirm what the three classic car buffs had been suspecting all along. The racing car bought by Visser with some negotiating help from father and son Bootsma very probably is the famous Alfa 12C/316. This is the car that would finally carry the Italians to Grand Prix victory over the Germans in the late 1930s, or so they thought. It is also the car that famous racing driver Achille Varzi, and later his colleague Clemar Bucci, would later drive in Argentina at the end of the 1940s. The story goes that Bucci even started a secret affair with Evita Perón in order to be allowed to drive the car, which had been confiscated by the Perón regime. He drove the car sporting her name on the bonnet (see text box).

The Alfa Romeo in question has been occupying the minds of vintage Alfa racing car buffs for quite some time. In the 1990s Bucci sold his car to an Englishman, who later sold the car to an Austrian. Some years ago the Bootsmas were tipped off that Bucci still had the car in his garage. “That car exhibited every trace of the alterations to the chassis which the car had undergone according to the historical records,” Jerry Bootsma says. “Even the engine must be the real thing. At one point during its racing career the left hand cylinder bank and head were damaged. The repairs that followed can still be clearly seen.”

The Dutchmen suspect that in the 1980s Bucci secretly put together a second car from spare parts, and used the newly assembled vehicle to swindle the English buyer, who then decided to make the best of things and had the car taken to the United States, where it was restored to such an extent that its authenticity is now difficult to establish. For example, the wishbones were nickel-plated, which makes it impossible to see whether they are the age they should be. Also, contrary to normal practice, no photographic record was kept of the restoration process.

“However, experts have always confirmed that the car which the Englishman bought off Bucci was the original one,” Jerry Bootsma says. “Of course, there is no reason why they shouldn’t. If someone buys Bucci’s Alfa Romeo, you’d expect it to be the Alfa Romeo driven by Bucci. I suspect nobody even bothered to ask whether it was the original car. There’s every chance that Bucci didn’t even have to tell a lie. On the other hand, when we asked Bucci about the truth of the matter, he was a bit evasive. ‘Find out for yourself’ is what his comments amounted to.” So Bucci’s a scoundrel? “Well, yes,” Bootsma laughs. Bucci remained unavailable for comment.

So what about the frame numbers of the two cars, which are also on the identification plates? No luck there, according to Patrick Italiano, professor of sociology at the University of Liege, and another Alfa Romeo aficionado. Italiano has written about the history of the 1938 vintage 12C-37, 312, and 316 Alfa Romeo cars in ‘Het Klaverblaadje’, the periodical of the Dutch Alfa Romeo owners club. “The numbers on both cars are fake,” the researcher says. “The discs carrying those numbers were made in the 1980s and 90s in Argentina. And I know who made them. Our Mister Bucci has been telling a pack of lies.”

Fingerprint

Some months ago Visser and the Bootsmas rolled their 1937 vintage twelve-cylinder Alfa Romeo into the workshop at the department of materials sciences, hoping that the scientists would be able to provide them with more explicit proof. Student Janneke Nienhuis and her supervisors, Dr. Ir. Jilt Sietsma and Dr. Joris Dik, collected paint samples from the front and rear of the body, bits of aluminium from the chassis, and flakes from the welds. The purpose was to get a fingerprint of the component materials of the car. ->
During the 1950s, so the story goes, Bucci raced a car sporting the bodywork of a 12C-37 and a chassis consisting of the front section of a chassis from a 1937 or 1938 twelve-cylinder Alfa Romeo married to a chassis from a 1938 sixteen-cylinder Alfa Romeo. He later shortened the car and later again restored it to its former state. The scars of the alterations are there for all to see. The question is, when was the surgery performed? “Between 1920 and 1940,” Sietsma says. “Or rather, the beams of the two chassis were welded together at some time during that period. We know that because the weld samples contain traces of aluminium, silicon, manganese, and iron, elements that are typical of the welding rods used for autogenous welding at the time. The period also shows in the roughness and width of the welds.”

The coats of paint on the bodywork also seem to indicate that the Dutch buyers took home the original car. Under the red paint Nienhuis found, among other colours, a blue and yellow coat, Bucci’s Argentine racing colours.

The results of the tests have a direct impact on the racing world. Belgian sociologist Patrick Italiano says he is pleasantly surprised that the metallurgical tests show that the bodywork probably dates from before the war. He chooses his words with care. “If that is a fact, and I have no reason to doubt the quality of the tests performed in Delft, it goes against the accepted interpretation about the authenticity of the two cars.” Until now Italiano had always taken the position that the Austrian car contained a greater share of original parts. He based his view partly on tests carried out by two Argentineans who published a book in 2005, ‘Alfa Romeo Argentina’, in which they discuss the two Alfa Romeo cars in detail. “I am hoping to meet the authors in Paris this weekend to discuss the new information.”

Italiano will also contact the Englishman of the story, Simon Moore. In their small world, Moore is considered to be the man who knows everything there is to know about Alfa Romeo cars. In exchange for his knowledge Italiano hopes to get information from Moore about what happened for example to the gearboxes of the cars, which the Belgian says aren’t the original ones. Moore appears to have sworn the gearbox manufacturers to secrecy. “That’s because Moore intends to publish a book on the Alfa cars himself,” Italiano explains.

**Big money**

Right up to the moment the test report came in from Delft, the new owner remained reticent towards the media. “Quite understandable,” Jerry Bootsma explained when the team had...
Racing history

Even without the suspicion of fraud hanging over Bucci’s dealings, the story behind the Alfa Romeo 12C-37 contains enough ingredients for a Hollywood movie. The car was the weapon launched by the Italians in 1937 to challenge on the racing track the supremacy of their German fascist competitors, who were driving the mighty Mercedes. Alfa Romeo designer Vittorio Jano created four cars that were slightly longer and lower than had been usual until then. He also fitted them with twelve-cylinder engines instead of the commonly used eight-cylinder variety. The powerful cars adorned many posters of the 1930s, with Il Duce’s banner proudly waving in the background.

During the Coppa Acerbo, the 12C's litmus test, the car’s road-holding properties proved to be less than ideal. Patrick Italiano, professor of sociology at the University of Liege, and an Alfa Romeo aficionado, wrote about the event in 2001 in ‘Het Klaverblaadje’, the Dutch Alfa Romeo owners club magazine. “Expectations of the new 12C-37 ran high because Italian nationalist feelings, fed by fascist propaganda, had received a devastating blow from German dominance of racing during the previous three seasons. The press simply refused to believe the outcome, and the response was almost comical. ‘Surely this hadn’t been the real test, since everybody knew that the cars hadn’t been ready. The first real demonstration would take place during the next Grand Prix, the Italian Grand Prix in September, which the Alfa Romeo cars would of course win.’”

Unfortunately, at the 1937 Grand Prix at Livorno, the Germans again trounced the Italians. The fiasco led to the dismissal of Jano.

In 1938 the Grand Prix rules were changed, and engine capacity was restricted to three litres. In that year Alfa Romeo built a number of chassis similar to the 1937 chassis, and fitted them with sixteen-cylinder engines. They may also have modified some of the 12C-37 chassis. During a race in Tripoli that year two of the 12C-37 cars crashed. One of them was a write-off, and the driver was killed. No one knows what exactly was left of the Alfa Romeo complement just prior to the war. “Alfa Romeo was the king of recycling,” Italiano says.

“They used to recycle components all the time. We now know exactly which combinations they made.” After the war Alfa Romeo updated one of the cars for Italian racing driver Achille Varzi. Until his fatal crash racing an Alfetta in 1948, Varzi used the car to race in Argentina. The story goes that the car then came into the possession of the Perón regime, and that Argentine racing driver Clemar Bucci managed to lay his hands on it by starting a secret affair with Evita Perón. The driver changed the car’s livery to blue and yellow, the Argentine racing colours, and printed the name Evita on its bonnet in bold capitals. He drove the car in the Argentine Grand Prix on four occasions.

In the 1990s Bucci sold what was purported to be the legendary car to an Englishman, but several years later he turned out to have another car in his garage. The 12C/316 mystery was born.
only just begun testing. “We’re talking big money here. Jetze Visser has put his pension on the line.” The parties involved refuse to say how much the car cost. Hundreds of thousands? “No, more than that,” says Huub Rothengatter, friend and advisor to Visser, and another ex-racing driver. “If the tests had shown that the car was not the real thing, it would have been a disaster.” So Visser can breathe freely once again. The animated discussion about the results continues during a short break at the coffee machine. “We haven’t demonstrated that the car is real. We can’t,” says Sietsma, in an attempt to curb Jetze Visser’s excitement somewhat. “We have shown, with a high degree of certainty, that components of the chassis members were welded together between 1920 and 1940, which points strongly to the car being authentic.”

A light microscope gives materials scientists a first impression of the paint layers on the hood.

The tests

Perfectly aligned layers of colour, like liquorice all-sorts, appear when student Janneke Nienhuis places a flake taken from the car’s body under the microscope and increases the magnification to 200. Under the lead chromate red that currently adorns the car are a coat of grey, shades of blue, and Alfa red. “The blue coat appears to indicate that the owner has managed to obtain the original car,” Nienhuis says. “Bucci had painted the car in the Argentine racing colours. The bonnet was yellow at the time, which is also borne out.”

Retracing the colours that covered the car throughout its history is just one of the ways of establishing the materials fingerprint. Using an X-ray scan, Nienhuis also tries to find out whether the name Evita still graces the bonnet. An electron microscope was the instrument of choice when it came down to dating the paint pigments, the bodywork’s aluminium, and the steel and welds of the chassis.

Researchers at the Delft Reactor Institute are helping Nienhuis in her quest for Evita. Detecting the name would have been the ultimate find of her materials testing. To test whether an X-ray scan could reveal the true identity of the car, Nienhuis had previously prepared 1.5 millimetre thick pieces of aluminium sheet by painting them with various types of white paint in use during the 1940s and 50s, lead white, titanium white, zinc white, and chromium white. The X-ray absorption differed between the aluminium and the coats of paint, making the various layers stand out in contrast. Nevertheless, Evita failed to put in an appearance. “They probably used very thin decals that are invisible between the layers of paint,” Nienhuis says, “or the letters were sanded off, or perhaps they simply aren’t there.”

Electron microscope tests have also yielded some interesting information. Based on the amount of energy radiated by the atoms after being pelted with electrons, Nienhuis was able to deduce the elements contained in the paint. She discovered that the blue contained copper, which could indicate a blue pigment called copper phthalocyanine, which was used extensively during the period following the Second World War.

So far Nienhuis has been less successful in dating the steel and aluminium components. “Steel and aluminium come in hundreds of different varieties,” her supervisor Jilt Sietsma explains. “The precise composition of the metals depends on the production process. The production process is characterised by the varying quantities of manganese, silicon, and copper contained in the alloy. We have managed to form an idea of the composition. Now we have to search the archives to find out when these metals were made.” Help for the historical part of the research comes from metal manufacturer Corus.

The Delft team draws its main conclusions from the tests carried out on the material taken from the welds. From the roughness and width of the welds in the chassis Sietsma and his fellow expert on welds, Professor Ian Richardson, immediately deduced that the car had probably been welded together sometime in the 1930s or 40s, no later. “The electron microscope also showed the presence of aluminium, silicon, manganese, and iron,” Sietsma says, “which are elements that are typical of the welding rods that were used in autogenous welding during that period.”

Sietsma doesn’t commit himself though. “Of course, it could be the work of an expert forger, but that is highly unlikely. We even found bits of rust between the welds. Forgers always lack the necessary expertise on materials. You get the same with painters forging pictures. They always use the wrong pigments.”